

ENTOMOLOGISCHE BERICHTEN

MAANDBLAD UITGEGEVEN DOOR

DE NEDERLANDSE ENTOMOLOGISCHE VERENIGING

ISSN 0013-8827. Officiële afkorting (World List): Ent. Ber., Amst.

Deel 42

1 mei 1982

No. 5

Adres van de Redactie:

B. J. LEMPKE, Plantage Middenlaan 64, 1018 DH Amsterdam — Nederland

E. A. GOMAA and H. R. BOLLAND, *Eupalopsis vandergeesti* a new eupalopsellid mite from the Netherlands (Prostigmata: Eupalopsellidae): 65; B. J. LEMPKE, *Theria rupicapraria* (Denis & Schiffermüller) en *T. primaria* (Haworth) in Nederland (Lep.: Geometridae): 68; BEN BRUGGE, De volwassen dieren van *Pharongomyia picta* (Meigen, 1824) voor het eerst in Nederland gevonden (Diptera: Oestridae): 73; JEAN BELLE, Odonata collected in the Canary Islands: 75; ALEXANDER KLINK, *Rheopelopia ornata* (Meigen): Description of the metamorphosis and ecology of a river inhabiting Tanypodinae-larva, new to the Dutch fauna (Diptera: Chironomidae): 78; KORTE MEDEDELINGEN: A. W. P. MAASSEN, *Catephia alchymista*: 74; Aankondiging Tweede Europese Entomologencongres: 74; LITERATUUR: 77; PERSONALIA: 80.

***Eupalopsis vandergeesti* a new eupalopsellid mite from the Netherlands
(Prostigmata: Eupalopsellidae)**

by

E. A. GOMAA and H. R. BOLLAND

ABSTRACT. — *Eupalopsis vandergeesti* collected on plum (*Prunus domestica* L.) and apple (*Malus communis* Lam.) is described as a new species belonging to the family Eupalopsellidae. In the description the nomenclature used of the dorsal plates and setae was that of Summers (1960a, b), Summers & Chaudri (1965) and Gonzalez (1965).

INTRODUCTION

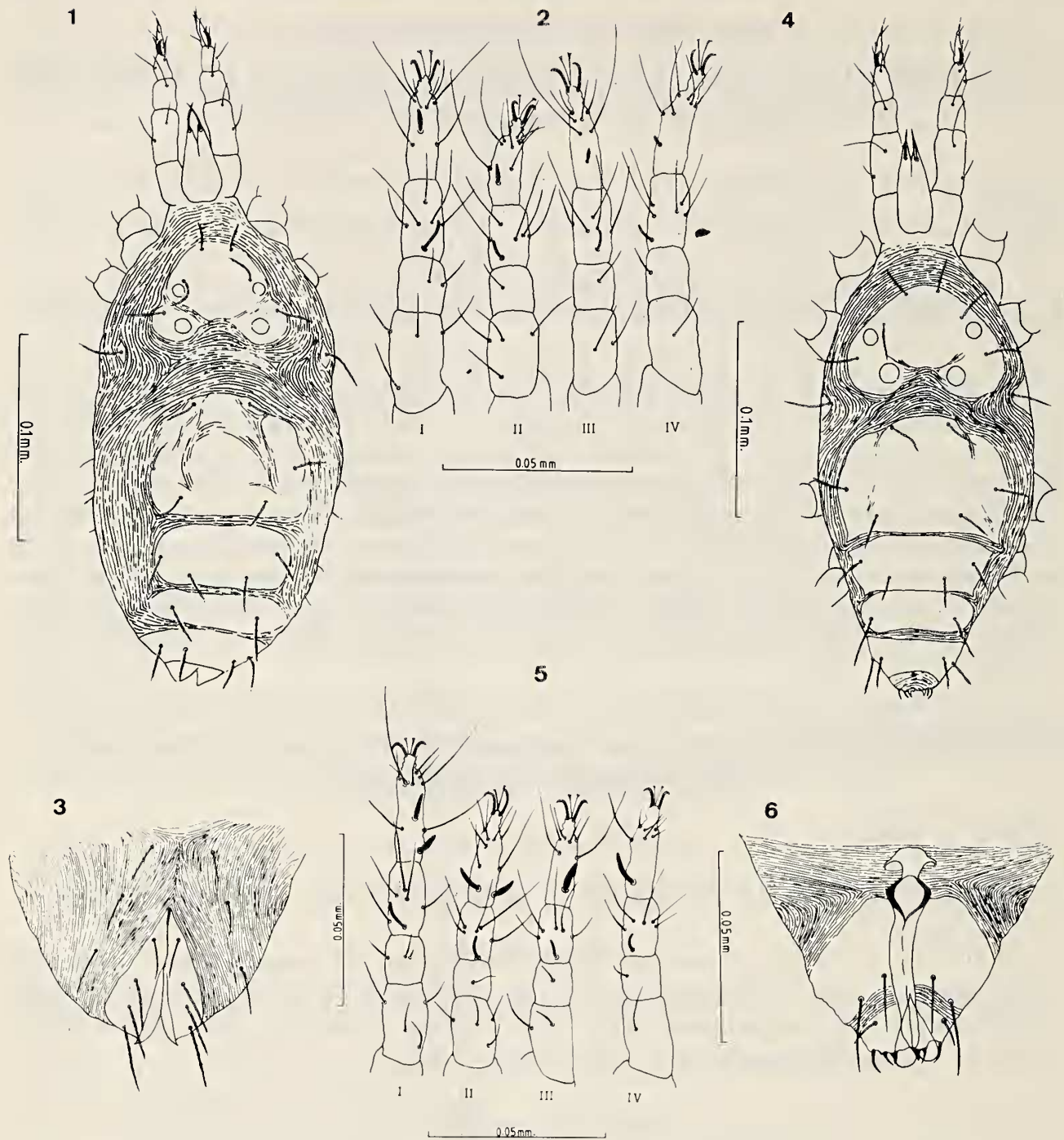
On leaves and stems of plum and apple-trees in the orchard of the Laboratory of Experimental Entomology, University of Amsterdam, an Eupalopsellid mite was found in association with the spider mite *Tetranychus urticae* Koch and a not identified species of scale insects.

This mite, belonging to the genus *Eupalopsis*, appeared to be a new species and is described below.

Eupalopsis vandergeesti sp. n.

This species is related to *Eupalopsis acus* Summers, 1960b, but differs in having two pairs of eyes, and a different chaetotaxy on the tarsi, especially on tarsi I & II.

Female: (fig. 1, 2 and 3). — Relatively small mite, reddish in colour, with a somewhat elongate body. The chelicerae protrude prominently, their basal fixed digits are partly fused forming a stylophore; both, fixed and movable digits (needle-like stylets) tend to converge anteriorly. Palps usually long (112 μ), and slender; tibial claw well-developed; palptarsus (20 μ) longer than palptibia (16 μ) and carried as in usual claw-thumb arrangement. Setae on palp segments as follows: femur 2, genu 1, tibia 2, tarsus 6 including one small slender sensory rod on the outside.



Figs. 1-6. *Eupalopsis vandergeesti*, female - 1. dorsum; 2. legs; 3. genital aperture; male - 4. dorsum; 5. legs; 6. genital aperture.

Idiosoma. — Elongate oval and longer than legs. Two pairs of lens-like eyes. Dorsum partly covered with five unpaired dorsal plates and one small paired humeral plate; propodosoma covered with propodosomal plate which is triangular in outline and has a concave edge; two small humeral plates in normal position; metapodosoma covered with a relatively large hexagonal metapodosomal plate; opisthosoma covered with two plates and a terminal end-plate (suranal). All dorsal plates very faint and delicate, areas between dorsal plates and body edges finely striated, the striation invades propodosomal and metapodosomal plates. Dorsal setae 12 pairs, three pairs (ae, be, ce) on propodosomal plate, one pair (he) humerals, three pairs (a, la, b) on metapodosomal plate, two pairs (lm, c) on the first opisthosomal plate, one pair (li) on the second opisthosomal plate, and two pairs (le, e) on the suranal plate. All dorsal setae are very finely denticulate, measuring 14-34 μ , the vertical seta (ae) the shortest, the intercalary pair (li) the longest; the dorsal setae of the opisthosoma are noticeably longer and more robust than the propodosomal ones. Venter with three pairs of simple long flagelliform setae, first pair between coxae I, the second pair (the longest) between coxae III and the third pair between

coxae IV. Genital and anal openings contiguous and subterminal; no genital plate around genitalia; the anogenital covers with four pairs of genital setae, the anterior pair simple and short, the posterior three pairs relatively long and very minutely serrated. Anogenital area with three pairs of paragenital simple setae. Legs shorter than body, legs I & IV longer than II & III; empodium with two pairs of capitate raylets. Tarsi I-IV each with a clavi-form sensory rod, but those of I & II longer than those of III & IV. Tibiae I-IV each with a thin, long, slender and curved sensory rod but that of tibia I the longest. Setae on leg segments: femora: 4-4-2-1, genua: 2-1-1-1, tibiae: 6-6-6-6, and tarsi: 9-9-7-7.

Measurements. — Body length (from bases of vertical setae (ae) to posterior end of idiosoma) = 285 μ ; greatest width = 152 μ ; gnathosoma (from bases of vertical setae to anterior end of pedipalps) = 160 μ , pedipalp = 112 μ , palptibia = 16 μ ; palptarsus = 20 μ ; dorsal setae: ae = 14, be = 22, ce = 26, he = 32, a = b = c = 16, la = 18, lm = 20, li = 34, le = 26 and e = 24 μ .

Legs: I-IV = 180, 145, 156 and 164 μ .

Male: (fig. 4, 5 and 6). — Resembles female in gnathosoma, propodosoma, and legs. Body pointed posteriorly, smaller than female; legs somewhat shorter. Idiosoma covered with five dorsal plates each with a number of dorsal setae like in the female; all dorsal plates delicate and smooth. All dorsal setae similar in shape and distribution to those of the female but mostly shorter, vertical setae (ae) the shortest and the intercalaries (li) the longest. Anogenital aperture in terminal position, with a curved genital plate on which two pairs of simple genital setae are located; one pair of short simple setae on anal covers. The distal end of opisthosoma bears three pairs of short and thick setae like spines. The aedeagus is a tube extending backwards from the neck of the dropshaped vesicle. Male solenidion W δ appear on all tarsi, but tarsi I & II with two sensory rods each, and tarsi III & IV each with one smaller sensory rod. Tibiae I-IV each with one thin and long sensory rod but that of tibia I the longest. Genua I, III and IV each with a spine K seta but that of genu I the shortest. Femur I with a spine K. Legs chaetotaxy: femora: 4-4-2-1, genua: 3-1-1-1, tibiae: 6-6-6-6, and tarsi: 11-9-7-7.

Measurements. — Body length = 240 μ , greatest width = 120 μ , gnathosoma = 142 μ , palp = 106 μ , palptibia = 18 μ , palptarsus = 20 μ . Dorsal setae: ae = 15, be = 22, ce = he = 26, a = 20, b = 22, c = 16, la = lm = 20, li = 30, le = 22 and e = 16 μ .

Material examined. — Holotype (♀) and paratypes (2 ♀ and 1 ♂), Amsterdam, the Netherlands, 25.VI.1981, leg. E. A. Gomma and H. R. Bolland, ex. *Prunus domestica* and 1 paratype (♂), Amsterdam, I 1981, leg. Mrs Hetty Franken-Regeer, ex. *Malus communis* deposited in the collection of the Faculty of Agriculture, Cairo University, Giza, Egypt. Other specimens are deposited in the collection of the Zoological Museum, Amsterdam and in the collection of the Laboratory of Experimental Entomology, University of Amsterdam.

Acknowledgements. — The authors thank Mrs Hetty Franken-Regeer for collecting and preparing samples.

REFERENCES

- Gonzalez, R. H., 1965. A taxonomic study of the genera *Mediolata*; *Zetzellia*; and *Agistemus* (Acarina: Stigmaeidae). — *Univ. Calif. Publ. Ent.* 41: 1-46.
- Summers, F. M., 1960a. Several stigmaeid mites formerly included in *Mediolata* redescribed in *Zetzellia* Oud. and *Agistemus*, new genus. — *Proc. ent. Soc. Wash.* 62: 233-247.
- , 1960b. *Eupalopsis* and *Eupalopsellid* mites (Acarina: Stigmaeidae, Eupalopsellidae). — *Florida Ent.* 43 (3): 119-138.
- , & W. M. Chaudri, 1965. New species of the genus *Cryptognathus* Krammer (Acarina: Cryptognathidae). — *Hilgardia* 36 (7): 313-326.

Gomma, E. A., Department of Agricultural Zoology, Faculty of Agriculture, University of Cairo, Giza, Egypt.

Bolland, H. R., Laboratory of Experimental Entomology, University of Amsterdam, Kruislaan 302, 1098 SM Amsterdam, the Netherlands.